

Claims

1. A method of preparing a selenium yeast product for use in food, dietary supplements, or drugs, whereby said yeast is cultivated on a minimal medium under aerobic conditions, **characterised by** the steps of:

5 a) cultivating the yeast, which includes

10 i) nutrients being fed to the yeast during the cultivation to an extent corresponding to the consumption of said nutrients in the yeast;

15 ii) glucose and/or maltose being the sole sources of carbon in the feeding medium;

20 iii) the concentration of ethanol during the cultivation not exceeding 1%, preferably 0.5% and most preferably 0.2%;

iv) the pH value during the cultivation being maintained at between 4.0 and 6.0, preferably between 4.4 and 5.7, most preferably between 4.7 and 5.4, such as 5.0; and

25 v) an aqueous salt of selenium being admixed to the feeding medium in an amount corresponding to between 1000 and 1500 ppm of selenium, calculated on dry matter in the yeast;

25 b) isolating the yeast obtained in step (a).

30 2. A method according to claim 1, **characterised by** the isolation including harvest by way of centrifuging or filtration.

30 3. A method according to claim 1, **characterised by** further including the steps of:

- c) washing the yeast cells from step (b),
  - d) heat treating the yeast cells from step (c), and
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- e) optionally drying the product from step (d).

4. A method according to any of claims 1 to 3, **characterised by** the minimal medium being composed of raw materials of a pharmaceutical quality.

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5. A method according to any of claims 1 to 4, **characterised by** the yeast including a species of the genus *Saccharomycetaceae*, preferably *Saccharomyces cerevisiae*, *Saccharomyces boulardii sequela* and/or *Saccharomyces torula*.

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6. A method according to claim 5, **characterised by** the yeast being *Saccharomyces cerevisiae*.

7. A selenium yeast product for use in food, dietary supplements or drugs, **characterised by**

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a) a content of organic selenium compounds corresponding to a range of between 1000 and 1600 ppm of selenium, preferably between 1100 ppm and 1500 ppm of selenium, most preferably between 1200 ppm and 1400 ppm of selenium,

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b) the content of l-selenomethionine constantly constituting at least 55% of the total selenium content, and the content of selenium in inorganic selenium compounds not exceeding 1% of the total selenium content,

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c) the selenium yeast product being obtainable by cultivating a yeast culture seeded with a pure culture of a *Saccharomyces* sp., preferably *S. cerevisiae*, *S. boulardii sequela*, and/or *S. torula*, by adding sources of carbon, nitrogen and selenium in

amounts per time unit corresponding to the amount which can be absorbed in the yeast during a predetermined time period, and the cultivation taking place in minimal medium exclusively including purified, homogeneously defined nutrients in form of raw materials which are described in pharmacopoeia.

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8. A selenium yeast product according to claim 7, **characterised by** being obtainable by the method according to any of claims 1 to 6.

9. A use of the selenium yeast product according to claim 7 or 8 for preparing a food

10 product.

10. A use of the selenium yeast product according to claim 7 or 8 for preparing a dietary supplement.

15 11. A use of the selenium yeast product according to claim 7 or 8 for preparing a drug.